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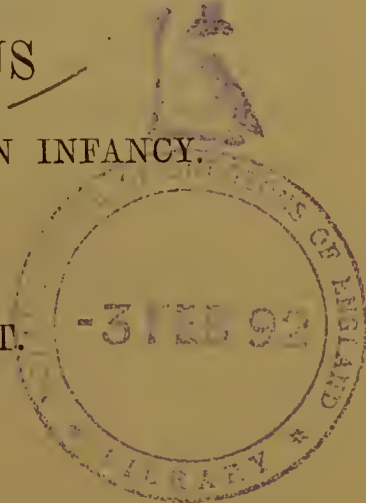
CASE

ILLUSTRATING THE

ARREST OF DEVELOPMENT OF THE RIGHT HUMERUS

AFTER AN INJURY RECEIVED IN INFANCY.

BY THOMAS BRYANT.



THE investigations of Dr. Humphry, of Cambridge, upon the mode of growth of the long bones, and the effects of disease and injury upon their development, have been the means of calling professional attention to an obscure and interesting class of cases, and render the record of any example coming upon the point a subject of interest. With this feeling I have been led to extract from my note-book the brief particulars of the following case, which well illustrates the effects of an injury to the shoulder in early life, and the subsequent arrest of development of the right humerus.

Miss D—, a healthy-looking woman, æt. 30, came under my care at Guy's Hospital, on October 30th, 1860, for a slight inflammation of the axillary follicles, which rapidly disappeared under treatment. Observing, however, during the examination the unusual deformity of the right arm, I obtained her consent to the accompanying photograph to be taken, and was enabled to collect the following particulars respecting the history of the case.

When an infant, only a few months old, she received an injury, from a fall, to the right shoulder, but of what nature she was unable to say; the accident was not followed by any suppuration or exfoliation of bone, but it was succeeded by a stiffness of the joint and by an arrest of the growth of the right arm; the forearm and hand of the affected side were, however, well developed, and were equal in point of size and strength to those on the left side.

Present appearances.—On making a careful examination of the limb the right humerus was found to be firmly anchylosed to the scapula, but no deformity or dislocation of the joint could be detected. The shoulder was considerably flattened, from a wasting of the deltoid muscles, but this condition was readily explained by its never having been called into proper action; the muscles of the arm otherwise appeared to be of their natural size and strength.

The head of the humerus in point of magnitude, the shaft of the bone as regards its diameter, with the condyles, appeared to be of their normal dimensions; but the right humerus was considerably shorter than the left, and on comparing the measurements of the two sides between the acromion process and the olecranon there was a distinct difference of five inches.

The right elbow-joint, forearm, and hand, were well developed, and did not differ in any respect from the left.

Remarks.—The examination of this case clearly demonstrated the fact that the right humerus had been arrested in its growth lengthways, although in all other respects its development appeared to have been quite natural; and there was little, if any, room for doubt that this condition was the immediate result of the accident which had been received in early life.

What that accident might have been it was impossible to make out; it might have been a fracture or separation between the shaft of the bone and its upper epiphysis; but the absence of any apparent dislocation militated against this view; the presence of an anchylosed shoulder-joint pointed to the pre-existence of some inflammatory action, but the non-appearance of any suppuration at the time leads us to infer that the inflammation was not of a very active nature. But the history

of the case and the condition of the arm demonstrated the fact that the original injury had proved amply sufficient to prevent the subsequent growth and development of that soft and vascular cartilaginous layer which is situated between the shaft of the long bones and their epiphyses, and upon the growth and ossification of which the elongation of the bones is almost entirely effected.

In the humerus Dr. Humphry has shown that it is at the upper epiphysis the principal elongation of the bone takes place, and the case related goes far to confirm the accuracy of his observations.

PLATE

Exhibiting the arrest of development of the arm in the case
of Mr. Bryant's above related.



